Daily Diary Report by Bid Item

Contract No.: 04-0120F4
Diary #: 976 **Const Calendar Day:** 549 **Date:** 05-Dec-2013 Thursday
Inspector Name: Brignano, Bob **Title:** Transportation Engineer
Inspection Type:
Shift Hours: **Break:** **Over Time:**
Federal ID:
Location:
Reviewer: Schmitt, Alex **Approved Date:** **Status:** Submit

04-0120F4
04-SF-80-13.2/13.9
Self-Anchored
Suspension Bridge

Weather

Temperature **7 AM** **12 PM** **4PM**
Precipitation **Condition** clear

Working Day ☑ If no, explain:

Diary: Dispute ☐

General Comments

CCO 314, SAMPLING AND TESTING A354 GRADE BD MATERIAL:

Last week on Wednesday November 27, 2013, Dyson shipped the jacking rods, couplers, nuts, and washers for Test Rigs #6 and #8 through #11 (Test Rig #5 materials previously shipped and Test Rig #7 materials are not ready yet), and they were not scheduled to arrive on site until later this week on Friday 12/6/2013. However, the material arrives today at about 1000 on 3 pallets/skids. There is one long skid with the jacking rods, a pallet with the couplers, and a pallet with the nuts and washers.

ABF Engineer Kelvin Chen spends part of today working in the office and field on CCO 314 issues.

VGO is on site with Dave Van Dyke, Rob Rutledge, and Nick Buck. They start work at 0800, take lunch between 1200 and 1230, and leave the site at 1630. Prior to arrival of the jacking rods, there is limited work that VGO can perform. VGO checks wires at Test Rigs #6 through #11 (part of the QC check - verify that the wires are ok between the eDAQ datalogger and the test rigs), completes the strain gauges on the test rod for Test Rig #6 (previously completed 4 out of 8 strain gauges on this rod), finishes the wire run and enclosure at Test Rig #11 (last test rig to complete - was started but not finished yesterday), and starts to build lids for over the handholes in the test rigs.

After arrival of the jacking hardware from Dyson at about 1000, ABF puts resources to this operation after the morning break. Ironworkers Rob Martell and Barry Rothman are working a 12-hour shift today, but the first 3 hours and last 2 hours are not on CCO 314 – the other work is not inspected by me, but it is miscellaneous Pier 7 yard operations and the preparations for the Left Coast Lifter (Shear Leg Crane) removal from the jobsite. Their time on CCO 314 is 5 hours Regular and 2 hours OT (1.5x) – after the first 8 hours of Regular time, they work OT, 1.5x for the first 2 hours, and 2.0x Double Time for the remainder of the shift. Operators Nick Schaffer and Ian Wells also work on the CCO briefly with forklifts to move materials – Nick for moving the material that arrived on site to the work area and Ian for installing the TR #6 rod in the test rig. Laborer foreman Ignacio Garcia also works briefly to secure timber on which the rods are placed for VGO to instrument.

The ironworkers, operators, and laborer set the 4 jacking rods for TR's #8-11 up on timbers (act like sawhorses) for VGO to have access for installing strain gauges. Stacking the 12x12's, securing with other timber, and placing the rods on top with wedges (for safety - rod rolling prevention) is complete by 1200. Meanwhile, VGO was doing other work, including completing the strain gauge installation on the test rod for TR #6. With the arrival today of the jacking rod for TR #6, completing the strain gauges on the test rod (previously delivered to the site) allows ABF work to then proceed to install the coupler on test rod, the jacking rod in the coupler, and the assembly into the test rig. VGO is almost done with TR #6 strain gauge

installation before lunch and completes it just after lunch at about 1245. Then, after 1245, VGO begins strain gauge installation work at the TR's #8-11 jacking rods. Today that work only includes grinding the rough surface of the jacking rod shanks and doing layout for the strain gauge locations. The jacking rods had been peeled down from larger diameter bar stock so they have a rough surface (ridges) that need to be smoothed for the installation of the strain gauges.

For Test Rig #6, after lunch ends at 1230, the ABF ironworkers move the newly arrived jacking rod and coupler to the Test Rig #6 area. Then after VGO finishes strain gauge installation at about 1245, the last component is available. First the ironworkers install the coupler on the jacking rod, which is done about 1310. Then the ironworkers install the instrumented test rod in the coupler, which is done about 1330. The thread engagement lengths of the jacking rod and test rod in the coupler are verified – fully engaged per the plans. Match marks are added to the coupler and rods to allow verification later that the parts do not unthread during installation work. The neoprene drip rig is installed on the test rod so that it will be between the wet chamber diaphragm and the strain gauge location. The test rod had some paint pen marks from Dyson that will end up in the wet chamber, so those areas of the test rod are cleaned. The rod assembly is installed starting at about 1420. This involves an operator (Ian Wells) in an extendable forklift. The installation of the rod pushes out the grommet at the wet chamber diaphragm at least once and this is solved by adding one of the two approved grease products to the grommet/rod interface. The rod is fully installed by 1500. However, the rod is not installed with the VGO top strain gauge exactly on top, so the rod is slightly rotated so that the strain gauges are all positioned correctly (top, bottom, 2 sides). Then the neoprene support is added under the coupler. After other operations, the ironworkers prepare to install the end plate at the stressing end of Test Rig #6. They start installing the end plate at about 1715, but after only a few minutes of this work they are called to do other work at the Pier 7 warehouse area (Left Coast Lifter - Shear Leg Crane). They do not resume the CCO 314 work later in the shift.

Included in the shipment from Dyson that arrived today are spherical washers for TR's #6 and #8-11. These will need to be painted by CCC, but first the vent groove detail in the washers as fabricated by Dyson need to be expanded at the top. The as fabricated slots do not open as much as the top as planned, so they needs to be expanded to permit backer rod and plumbers putty installation after future verification of water flow (air bubble prevention) from the wet chambers. This afternoon, ironworkers briefly use a die grinder to enlarge the slots in these 5 washers. Painting will be addressed tomorrow.

Also this afternoon, the ironworkers address a gauge or nick issue on the jacking end plate at Test Rig #5. Previously when removing jack support lugs on the end plate for different size jacks, the base metal on the end plate was gauged or nicked. Today, the problem is remedied by using a die grinder to smooth out all of the sharp tips in the gauges. This is the solution requested by the DJV – with the locations of the gauges or nicks, they may remain in place as long as there are no sharp "crack" tips.

There is a hydraulic pump (Powerteam) on idle/standby at the work area. A generator – Whisperwatt 7000 – ABF ID 002343 is on idle/standby at the work area most of the day and is only used briefly. A compressor – IR P185R – ABF ID 002075 is on idle/standby at the work area most of the day and is only used briefly. A forklift – CAT, ABF ID 002004 – is used briefly (approx 1 hour) to move materials in today's shipment to the test rig area and set rods on timber and then is used off and on (few hours) later in the day for various parts that need to be moved. An extendable forklift is used briefly today (approx 1 hour) to install a rod in a test rig. A Kubota cart is used by the ironworkers today.

Note that there is k-rail at this work area. Some of the k-rail is rented and addressed by the rental agreement. Some of the k-rail is ABF's k-rail (27 pcs @20' and 8 pcs @10') used on site and paid as rented from ABF on a daily basis. However, one of the purchased 10' k-rail and one of the rented 20' k-rail have been removed at some point by ABF's ironworkers. To compensate, the ABF k-rail quantities will be reduced by one for each length. To elevate the k-rail, crane mats and timber blocking (12x12's) are in use. The k-rail quantities are as follows:
10' bought k-rail = 20 pieces (minus 1 missing)
10' ABF k-rail = 8 pieces
20' rented k-rail = 22 pieces (minus 1 missing)

20’ ABF k-rail = 27

The agreed extra work with ABF is as follows:
Ironworker Rob Martell - 5 hrs Reg, 2 hours OT
Ironworker Barry Rothman - 5 hrs Reg, 2 hours OT
Laborer Foreman Ignacio Garcia - 1 hr Reg
Operator Ian Wells - 0.5 hrs Reg
Engineer Kelvin Chen - 6 hrs
Kubota Cart - 7 hrs
Small Forklift - 4 hrs
Extendable Forklift - 0.5 hr
185 CFM Compressor - 1 hr
110 kW Generator - 1 hr
Radios (3 radios) - 14.5 hrs
k-rail: 26 pcs @20’ and 7 pcs @10’
Crane Mats (12x12 - 5’x16’) - 10 pcs
Crane Mats (12x12 - 5’x7’) - 4 pcs
See the attached Extra Work Order - Signed with ABF for CCO 314 work

INSPECTOR OT REMARK:

Field 2 hours: I am in the field for CCO 314 test rig work. ABF’s shift is 0700 to 1730 on the CCO work. My shift is 0700 to 1730 and my OT hours are 1530 to 1730.